

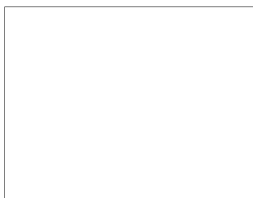
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**PHOTOGRAPHIC  
INTERPRETATION  
REPORT**

**NATIONAL PHOTOGRAPHIC  
INTERPRETATION CENTER**

**DEVELOPMENTS IN SHANTUNG  
PROVINCE, CHINA  
MARCH 1972 - JANUARY 1973**



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## DEVELOPMENTS IN SHANTUNG PROVINCE, CHINA MARCH 1972 - JANUARY 1973

### ABSTRACT

1. This report reviews major developments of intelligence interest observed in Shantung Province on photography from mid-March 1972 to mid-January 1973. It consists of text, maps, tables, and photographs.

### INTRODUCTION

2. Shantung Province is on the Yellow Sea coast of northeast China and consists of the Shantung Peninsula, a mountainous promontory which separates the Po Hai (Gulf of Chihli) from the Yellow Sea, and a portion of the Yellow River plain west of the peninsula. The province has an area of 59,300 square miles, approximately the size of Florida, and a population of 54 million.

3. This report updates a previous report <sup>1</sup> and provides a summary of major developments in missile, air, naval, electronics, ground forces, industrial, and underground construction activity in Shantung Province

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### BASIC DESCRIPTION

#### Missile Activity (Figure 1)

##### Surface-to-Surface Missiles

4. The only surface-to-surface missile (SSM)-associated facility in Shantung Province is the I-tu SSM Training School [ ] where camouflaged SRBM, CSS-1, and CSS-2 equipment was observed in September 1972 (Figure 2). The missile service tower is believed to be an aboveground training aid simulating the silo checkout facilities for the CSS-X-3 nominal ICBM. No other SSM activity was noted in the province.

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5. Although no new SSM-associated facilities or equipment have been found in Shantung Province outside of I-tu SSM Training School, several military and storage areas in the province are capable of supporting SSM activity. The nature of unidentified construction activity around I-tu SSM Training School and I-tu Airfield [ ] makes it impossible to state that no additional SSM-related facilities will appear in this area (see Air Activity, below).

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##### Surface-to-Air Missiles

6. Two new surface-to-air missile (SAM) sites (Figure 1) were identified [ ]

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7. Chao-lien Tao SAM Site [ ] on an island in the Yellow Sea 30 nautical miles (nm) east-southeast of Ching-tao, was first observed on photography [ ] It contained one probable CSA-1 missile and four CSA-1 missile launchers (Figure 3). This four-position site was difficult to identify on photography because of its irregular configuration.

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8. Yen-tai SAM Site D30-1 [ ] only 8.6 nm west-northwest of Yen-tai SAM Site C30-1 [ ] was first identified in the midstage of construction on photography [ ] the site appeared complete and was occupied by three CSA-1 missiles, four CSA-1 launchers, and four CSA-1 transporters. This circular six-position site is on a hilltop and is supported by four drive-in adits and a drive-through tunnel.

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9. Both Wei-hai SAM Site C11-1 [ ] and Yen-tai SAM Site C30-1 were unoccupied [ ] The equipment from Yen-tai SAM Site C30-1 may have been moved to Yen-tai SAM Site D30-1. Only Lai-yang SAM Site A36-1 [ ] has remained occupied throughout the reporting period.

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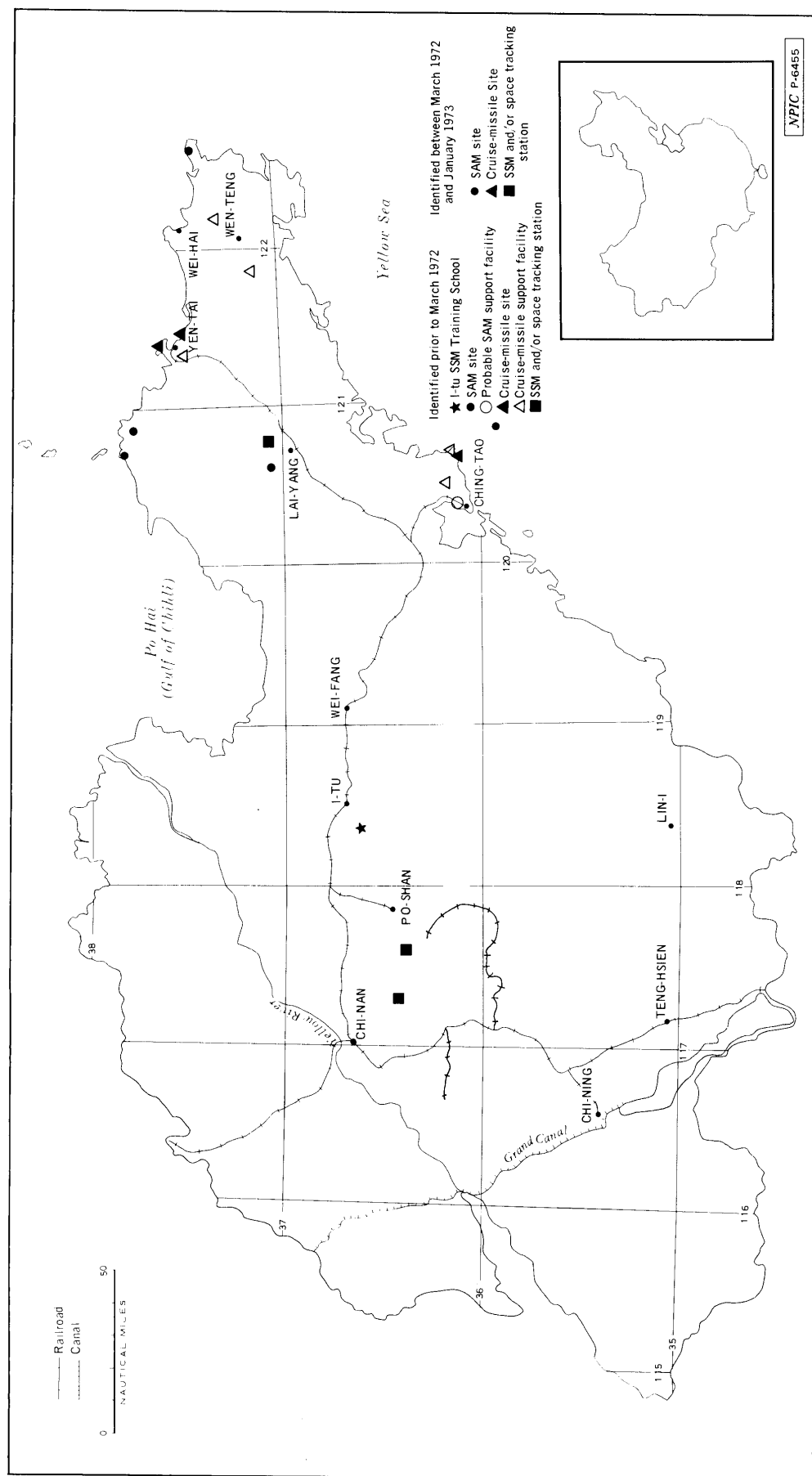


FIGURE 1. MISSILE ACTIVITY IN SHANTUNG PROVINCE, CHINA

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## Shipborne Cruise Missiles

10. A Luta DUGS was first observed at Ching-tao Naval Base [ ] 25X1

[ ] and has been repeatedly observed there since then [ ] 25X1

This was the first observed deployment of an indigenously designed Chinese cruise missile destroyer. The average high count of OSA PTFG observed at bases in Shantung Province increased from approximately ten in 1971 to approximately 16 in 1972. No other significant developments in shipborne cruise missiles were observed during the reporting period.

## Land-based Cruise Missiles

11. The Ching-shan Coastal Defense Site CM TSR [ ] was first identified on 25X1  
photography of poor interpretability [ ] Four possible missile launch 25X1

positions supported by tunnels were observed at the ridgetop site. The site is on a ridge just above the Ching-shan PUG Naval Facility [ ] which is an OSA PTFG base. The only access 25X1

to the possible launch site is via a road which goes through the Ching-shan Naval Cruise Missile Support Facility [ ] 25X1

12. A previously identified naval cruise missile support facility, Chiang-ko-chuang Naval Ammunition Depot [ ] may now also support land-based cruise missiles. Four CSS-N-1 25X1  
(STYX) launchers were identified in the shadow of a building at this facility on photography of [ ] 25X1

## Air Activity (Figure 4)

13. Ching-chih Highway Airstrip [ ] approximately 40 nm west of Ching-tao, 25X1

was first identified on photography [ ] This graded-earth strip, which 25X1

[ ] is the first highway airstrip identified in Shantung Province. 25X1

14. Construction continued throughout 1972 at I-tu Airfield. Photography [ ] 25X1  
[ ] showed that the runway will be connected by runways/taxiways with two large 25X1

tunnels. These tunnels are being constructed with multiple tiers of entrances which are served by narrow-gauge rail lines. A large arch-roofed possible hangar is partially buried in a hillside adjacent to the northern runway/taxiway. Three smaller tunnel entrances and several construction support areas were observed in the hills between the airfield and I-tu SSM Training School.

15. The first two aircraft bombing ranges identified in Shantung Province were observed on photography of October and November 1972 [ ] Lai-chou Wan (bay) Bombing Range [ ] 25X1

[ ] is on the southern shore of the Po Hai; Kao-mi Bombing Range [ ] 25X1

is approximately 40 nm south-southeast in the vicinity of Kao-mi Airfield [ ] (Figure 25X1  
5). The two ranges are similar. Both contain circular targets with crosses in their centers, a grid of 16 circular target mounds arranged in a square, and representations of aircraft outlined on the ground.

16. Both ranges showed signs of use. At the Lai-chou Wan range one of the circular targets was almost obliterated by bomb craters. At both ranges some target circles were scarred by many smaller blast marks which may be the result of cannon or rocket fire.

17. Thirty-seven BEAGLE aircraft were present at Chiao-shien Airfield [ ] on 25X1

[ ] This was the first time BEAGLE aircraft had been observed at this 25X1

airfield since [ ] FAGOT aircraft had been observed at Chiao-hsien during 25X1

the first eight months of 1972 [ ] 25X1

18. No aircraft have been observed at Lai-yang Airfield [ ] since September 1972 25X1

[ ] Prior to September 1972 this airfield was a BEAGLE base; however, it should not 25X1

necessarily be assumed that the BEAGLE from Lai-yang were moved to Chiao-hsien. Some of the BEAGLE which have left Lai-yang were identified as BEAGLE variant [ ] 25X1

No BEAGLE variant have yet been identified at Chiao-hsien.

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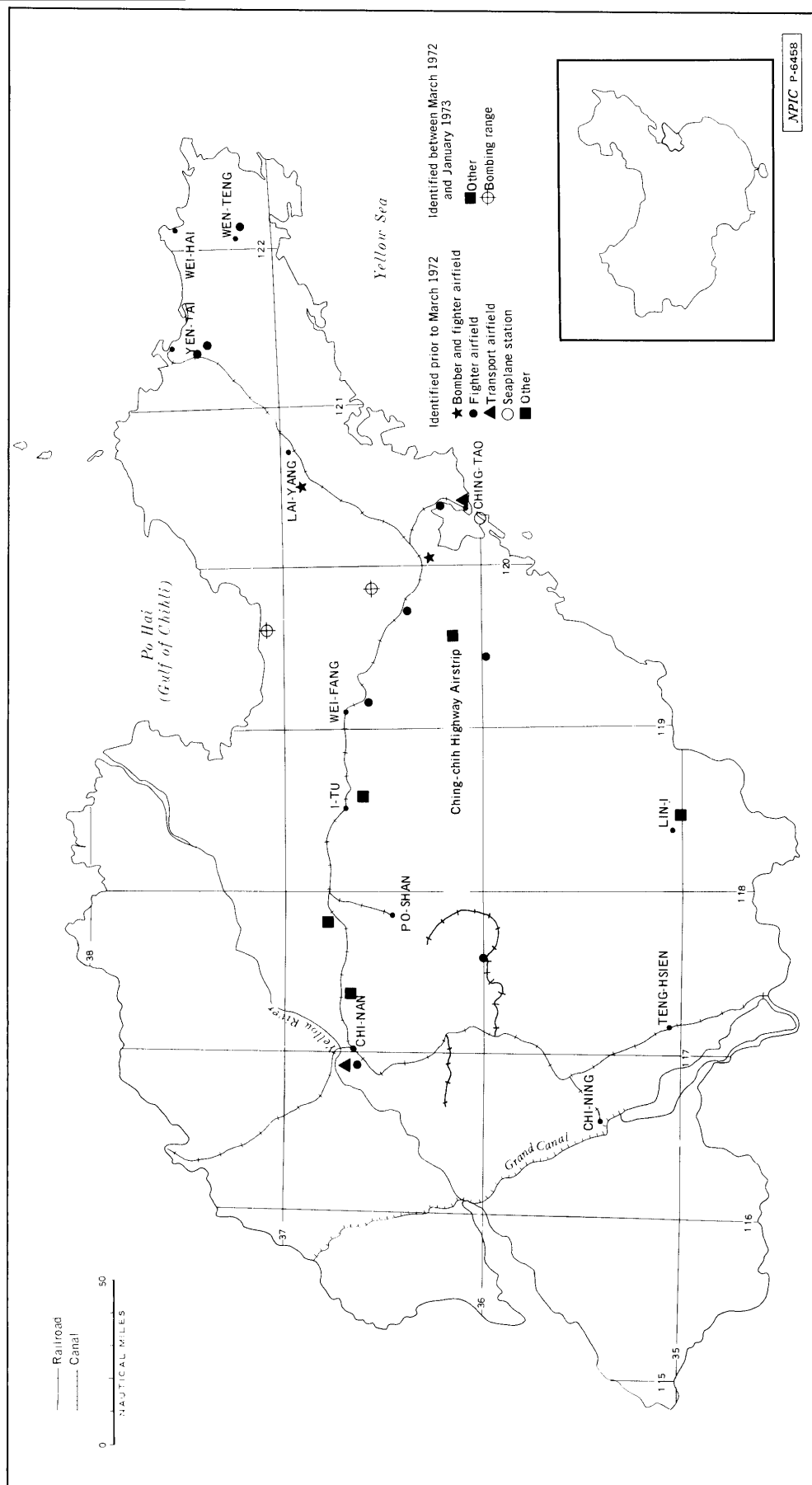


FIGURE 4. AIR ACTIVITY IN SHANTUNG PROVINCE, CHINA

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19. FAGOT/FRESCO aircraft may have been redeployed from Chiao-hsien Airfield to Ching-tao/Liu-ting Airfield [ ] in 1972. Forty-one FAGOT/FRESCO aircraft were observed at Ching-tao/Liu-ting airfield on photography [ ]. This was the largest number of FAGOT/FRESCO observed at this airfield [ ] when 49 were observed; the highest count during the past three years was 13. No FAGOT/FRESCO aircraft were observed at Chiao-hsien Airfield [ ]. 41 FAGOT/FRESCO were observed at this airfield in February 1972 [ ].

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#### Naval Activity

20. The first naval salvage operation observed in China on overhead photography was identified during the summer of 1972. A probable old submarine (OSS) was raised from the ocean floor 23 nm north of the Shantung Peninsula. The salvage operation was first observed under way in the Yellow Sea near the mouth of the Po Hai [ ]. During September 1972 repeated coverage [ ] showed the submarine first partially submerged and then surfaced just offshore at Yen-tai Naval Facility East [ ]. A salvage ship (ARS), a light salvage lift craft (YLLC), six flotation tanks, and several small craft were used in the operation (Figure 6). The submarine, which had been beached [ ], appears to be similar to submarines designed during World War II.

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#### Electronics Activity

21. Chi-nan Probable Space Tracking Facility [ ] in the hills 14 nm southeast of Chi-nan (Figure 1), was identified on photography [ ]. The facility contains a pedestal-mounted dish antenna [ ] (Figure 7). This facility is probably associated with space and/or SSM tracking.

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#### Ground Forces Activity

22. Shantung Province makes up the major portion of the Chi-nan Military Region. Ground forces weapons and equipment were observed at widely dispersed locations throughout the province during 1972 (Figures 8 and 9 and Table 1). Most of the sightings were of small numbers of weapons parked at army barracks or deployed in defense of airfields, harbors, or coastal areas. No large field exercises were observed in progress during the summer of 1972; however, an anti-aircraft artillery field exercise, elements of a field artillery division deployed in a dispersal area, and increased vehicular activity were observed during the fall [ ]. It has been suggested that PLA units conduct maneuvers in Shantung Province during the cooler months when crops will not be damaged. Forty-three confirmed tanks, eight probable tanks, and four possible tanks were observed in Shantung Province [ ]. River crossing equipment, including motor launches and TPP/PMP pontons on carriers, was observed both at Ping-yin Army Barracks AL 1 [ ] near the Yellow River and at Yeh-yuan Army Barracks [ ] near a large reservoir (Figure 8) on photography [ ].

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23. The Chinese have continued to expand and harden their coastal defense network in Shantung Province. Eight coastal defense sites were identified [ ] bringing the total in the province to 73. Enough artillery was observed at coastal defense sites to provide overlapping fields of fire along the province's entire Yellow Sea coast from the Po Hai islands in the north to the Kiangsu Province border in the south.

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#### Underground Construction

24. Continuing construction of passive defenses was observed [ ]. Tunnels, possibly for civil defense, and construction materials including prefabricated concrete arch-roofed sections often associated with personnel shelter construction were observed in Ching-tao. A drive-in possible personnel shelter or storage tunnel was observed under construction at Kao-mi Airfield on photography [ ]. Additional storage and support tunnels were identified at numerous facilities throughout Shantung Province.

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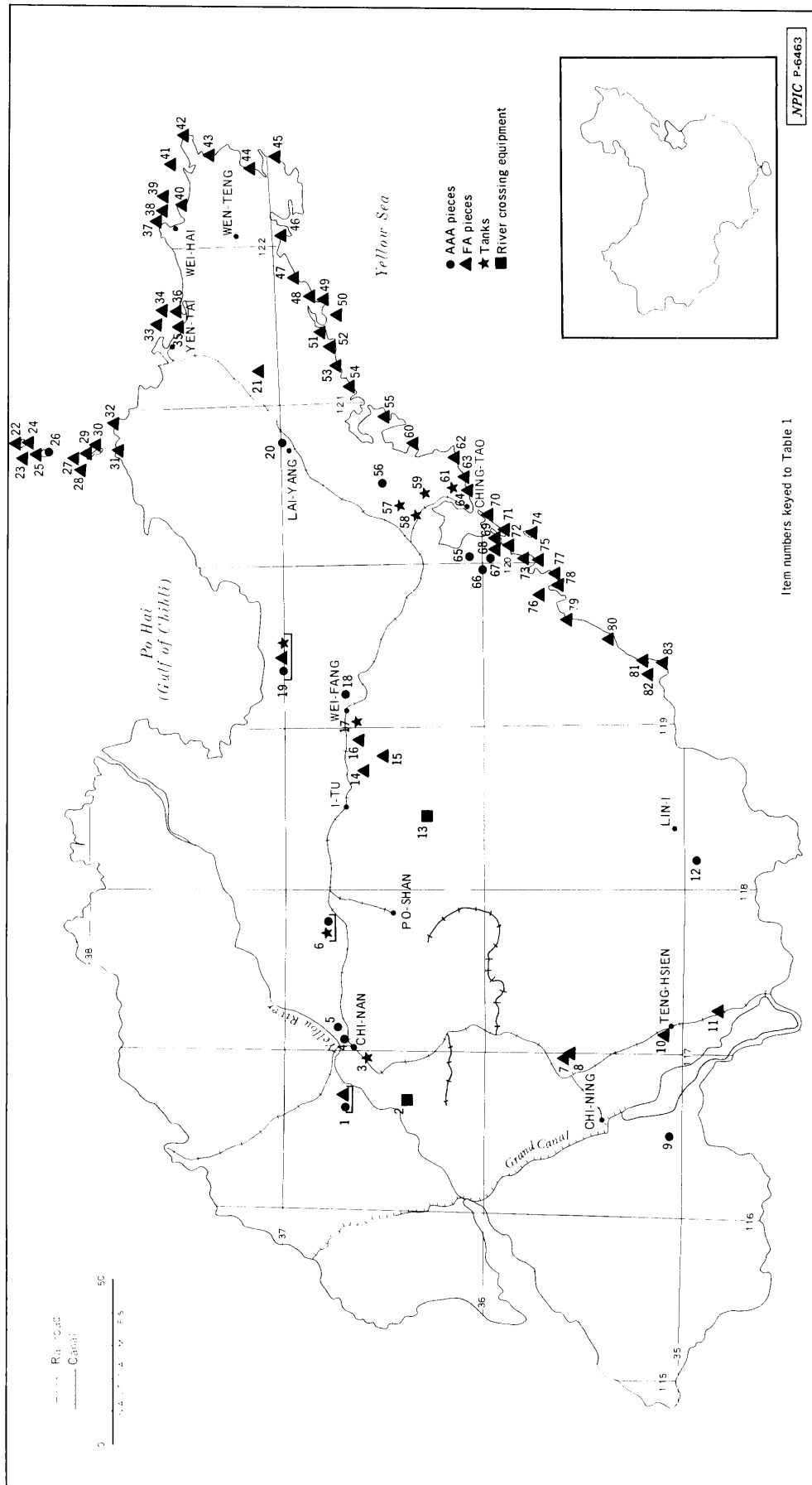


FIGURE 9. GROUND FORCES ACTIVITY IN SHANTUNG PROVINCE, CHINA, OCTOBER-DECEMBER 1972 (Items keyed to Table 1)

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13	River crossing equipment	Yeh-yuan Army Bks [redacted] 36-24-10N 118-31-40E	20 TPP/PMP ponto on carriers 2 prob river launches	River crossing equipment parked in the barracks area, on the shores of a large reservoir; ramp leading into water observed in front of barracks area	25X1 25X1
14	FA	Chang-lo Army Bks AL 2 [redacted] 36-39-41N 118-51-44E	5 FA pieces (prob 122-mm howitzers)	Parked in barracks area	25X1
15	FA	Chang-lo Army Bks AL 3 [redacted] 36-39-07N 118-53-28E	23 FA pieces 6 FA pieces (prob 122-mm howitzers)	Parked in barracks area	25X1
16	FA	Liu-chia-cheng-chang Army Bks AL 1 [redacted] 36-40-41N 118-58-12E	27 FA pieces (prob 122-mm howitzers)	Parked in barracks area	25X1
17	Armor	Wei-fang Army Bks WSW AL 1 [redacted] 36-41-10N 119-02-50E	17 tanks	Parked in barracks area	25X1
18	AAA	Wei-fang Army Bks NE [redacted] 36-44-08N 119-08-25E	18 AAA pieces (prob 37-mm)	Parked in a vehicle park in barracks area	25X1 TOP SECRET RUFF
19	Elements of an FA division, a AAA regiment, & armor deployed in a dispersal area	Chang-i Prob Arty Div Area [redacted] 37-00-00N 119-18-40E	1 tank (prob type-59) 2 prob tanks 111 FA pieces 47 AAA pieces	Weapons either parked or deployed in batteries of 6 near small barracks areas near the southern shore of Po Hai; extensive tracks observed near barracks where tanks were parked	25X1
20	AAA	Lai-yang HQ Inf Div & Army Bks AL 2 [redacted] 36-59-43N 120-40-35E	18 prob FA/AAA 6 AAA pieces	Parked in barracks area	25X1
21	FA	Tao-tsun Army Bks NNW [redacted] 37-14-35N 121-06-05E	12 FA pieces 4 prob FA pieces 2 poss FA pieces	Parked in barracks area	25X1
22	Deployed FA (coastal defense)	Pei-cheng-huang Tao CD Site 2 [redacted] 38-24-00N 120-54-40E	4 FA pieces	In firing positions	25X1 25X1
23	Deployed FA (coastal defense)	Pei-cheng-huang Tao CD Site [redacted] 38-23-20N 120-55-20E	8 FA pieces 7 AAA pieces	In firing positions	25X1
24	Deployed AAA Deployed FA (coastal defense)	Nan-cheng-huang Tao CD Site [redacted] 38-20-55N 120-54-35E	4 FA pieces	In firing positions	25X1

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Table 1. (Continued)

ITEM	SIGHTINGS	LOCATION	WEAPONS/EQUIPMENT	REMARKS
25	Deployed FA (coastal defense)	Nan-cheng-huang Tao CD Site 4 [redacted] 38-22-18N 120-54-20E	Four 100-mm FA pieces	In firing positions on the NE shore of Nan-cheng-huang Tao (island)
26	Deployed AAA	Ta-chin Tao Poss CD Site [redacted] 38-18-40N 120-49-39E	6 AAHMG	In revetments on hilltop directly south of site
27	FA	Pei-cheng-shan Tao CD Site 1 [redacted] 37-59-50N 120-42-50E	8 prob FA pieces	Parked in support area
28	FA	Ta-hei-shan Tao CD Site 1 [redacted] 37-59-05N 120-36-35E	4 poss FA pieces	Parked near firing position & tunnel
29	Deployed FA (coastal defense)	Chang-shan Tao CD Site [redacted] 37-57-20N 120-44-50E	6 FA pieces (prob 122-mm howitzers)	In firing positions
30	Deployed FA (coastal defense)	Chang-shan Tao CD Site 3 [redacted] 37-57-05N 120-44-12E	1 prob 122-mm howitzer	In firing positions
31	Deployed FA (coastal defense)	Peng-lai CD Site 2 [redacted] 37-50-00N 120-44-43E	Two 100-mm FA pieces	In tunnel-served firing positions
32	Deployed FA (coastal defense)	Peng-lai CD Position [redacted] 37-49-05N 120-54-45E	3 FA pieces	In firing positions
33	Deployed FA (coastal defense)	Kung-tung Tao CD Site 2 [redacted] 37-33-45N 121-30-30E	4 FA pieces	In masonry revetted firing positions
34	Deployed FA (coastal defense)	Kung-tung Tao CD Site 1 [redacted] 37-33-50N 121-30-50E	Two 130-mm FA pieces	In firing positions
35	Deployed FA (coastal defense)	Yen-tai CD Artillery Site [redacted] 37-30-55N 121-25-35E	6 FA pieces	In revetted firing positions
36	Deployed FA (coastal defense)	Yang-ma Tao CD Site 1 [redacted] 37-27-20N 121-35-05E	4 FA pieces 3 poss FA pieces	In firing positions
37	Deployed FA (coastal defense)	Wei-hai CD Site 1 [redacted] 37-31-20N 122-09-20E	4 FA pieces	In firing positions

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38	Deployed FA (coastal defense)	Liu-kung Tao CD Area 37-30-00N 122-10-20E	Eight 100-mm FA pieces	In firing positions; 4 positions hardened & tunnel served
39	Deployed FA (coastal defense)	Liu-kung Tao CD Site 37-29-55N 122-12-20E	4 FA pieces	In firing positions which appeared to be tunnel served
40	Deployed FA (coastal defense)	Chang-feng-chai CD Site 37-27-35N 122-15-10E	4 FA pieces	In hardened casemented firing positions
41	Deployed FA (coastal defense)	Chi-ming Tao CD Site 1 37-27-05N 122-29-50E	4 FA pieces	In firing positions
42	Deployed FA (coastal defense)	Lung-hsu Tao CD Site 37-23-40N 122-42-00E	4 FA pieces	In firing positions
43	FA	Chui-jung-cheng CD Post 37-24-30N 122-39-20E	8 FA pieces	Parked in two 4-gun batteries
44	FA	Jung-cheng CD Site 37-09-40N 122-34-15E	4 poss 130-mm FA pieces	Parked in support area
45	FA	Ning-ching-so CD Post 36-59-20N 122-30-42E	6 FA pieces	Parked at coastal defense post
46	Deployed FA (coastal defense)	Chien Tao CD Post 36-54-35N 122-02-30E	4 FA pieces	In firing positions
47	FA	Huang-tuan CD Post 36-53-10N 121-45-40E	4 FA pieces	Parked at CD post
48	Deployed FA (coastal defense)	Hai-vana-so CD Site 36-45-40N 121-37-40E	4 FA pieces	In tunnel entrances behind firing positions
49	FA	Huang Tao CD Post 36-43-15N 121-36-55E	4 FA pieces	Parked at CD post
50	FA	Tu-chia Tao CD Site 36-44-30N 121-33-20E	6 FA pieces	Parked in support area
51	Deployed FA (coastal defense)	Chao-chia CD Site 36-46-40N 121-28-20E	3 FA pieces	In firing positions

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Table 1. (Continued)

ITEM	SIGHTINGS	LOCATION	WEAPONS/EQUIPMENT	REMARKS
52	Deployed FA (coastal defense)	Hsin-chia CD Site 36-45-40N 121-26-20E	4 FA pieces	In firing positions
53	Deployed FA (coastal defense)	Chiu-hai-yang CD Site 36-41-20N 121-14-20E	8 FA pieces	Deployed in two 4-gun batteries in earthen bunkers
54	FA	Hai-yang CD Site 1 36-41-05N 121-05-20E	4 FA pieces	Parked in support area
55	FA	Tien-chi CD Site 2 36-32-30N 120-58-30E	4 FA pieces 1 prob FA piece	Parked in support area
56	Deployed AAA	Chi-mo Army Bks AL 3 36-27-05N 120-30-50E	12 AAA pieces (poss 57-mm) 18 AAA pieces (poss 37-mm)	Deployed near barracks area in 6-gun batteries
57	Armor	Cheng-yang Army Bks AL 4 36-23-50N 120-21-50E	2 prob tanks	Parked in barracks area
58	Armor	Cheng-yang Army Bks AL 2 36-20-20N 120-20-30E	1 tank 2 prob tanks	Parked in barracks area
59	Armor	Cheng-yang Army Bks AL 6 36-17-50N 120-26-50E	16 prob tanks 3 poss tanks	Parked in barracks area
60	Deployed FA (coastal defense)	Ao-shan-wei CD Site 1 36-20-08N 120-43-40E	4 FA pieces	In revetted bunker-served firing positions
61	Armor	Ching Tao Army Bks NE Ku Tao 36-08-22N 120-29-38E	1 tank 4 prob tanks	Parked in barracks area
62	FA	Chu-hsien-kung CD Post 36-07-15N 120-36-10E	4 FA pieces	Parked at CD post
63	FA	Shih-lao-jen CD Post 36-05-35N 120-29-40E	4 FA pieces	Parked at CD post
64	FA	Shan-tung-tou CD Post 36-05-50N 120-26-40E	6 FA pieces	Parked at CD post

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65	AAA	Wang-tai Army Bks SE AI 2 [redacted]	27 AAA pieces	Parked near barracks	25X1
66	AAA	36-03-28N 120-02-18E Wang-tai HQ Inf Div & Army Bks AL 1 [redacted]	18 AAA pieces Four 160-mm mortars	Parked near barracks	25X1
67	AAA	36-00-59N 119-59-25E Chiao-nan Army Bks AL 2 [redacted]	20 prob AAA pieces	Parked in barracks area	25X1
68	FA	35-57-00N 120-00-10E Wang-ko-chuang CD Site [redacted]	4 FA pieces	Parked in support area	25X1
69	FA	35-54-07N 120-00-41E Ling-shan-wei CD Post [redacted]	6 FA pieces	Parked at CD post	25X1
70	Deployed FA (coastal defense)	35-55-50N 120-07-45E Nan-chuang CD Site [redacted]	4 FA pieces	In firing positions	25X1
71	FA	35-59-20N 120-17-48E Yu-ming CD Post [redacted]	4 FA pieces 16 prob FA pieces	Parked in barracks area	25X1
72	FA	35-54-35N 120-10-40E Feng-chia-tuan CD Site [redacted]	2 FA pieces	Parked in support area	25X1
73	FA	35-52-24N 120-02-42E Tien-wang-chia Army Bks SE AL 1 [redacted]	4 FA pieces	Parked in support area	25X1
74	Deployed FA (coastal defense)	35-48-30N 120-00-30E Shui-ling-shan Tao CD Site West [redacted]	4 FA pieces	In firing positions	25X1
75	FA	35-45-40N 120-09-20E Yu-chih CD Post [redacted]	4 FA pieces	Parked at CD post	25X1
76	FA	35-44-55N 119-59-50E Yao-tao Army Bks AL 1 [redacted]	3 prob FA pieces	Parked in barracks area	25X1 25X1
77	Deployed FA (coastal defense)	35-36-45N 119-46-40E Ting-chia-wa CD Site [redacted] 35-38-55N 119-54-10E	2 FA pieces	In revetted tunnel-served firing positions	25X1

Table 1. (Continued)

ITEM	SIGHTINGS	LOCATION	WEAPONS/EQUIPMENT	REMARKS
78	FA	Po-erh CD Post [redacted]	2 FA pieces	Parked at CD post
79	FA	35-37-50N 119-53-10E Wang-chia-tan CD Post [redacted]	6 FA pieces	Parked at CD post
80	FA	35-37-00N 119-39-55E Jih-chao CD Artillery Site [redacted]	Three 122-mm FA pieces	Parked in support area
81	FA	35-20-20N 119-28-20E An-tung-wei CD Post Han-cha-ying-tzu [redacted]	6 FA pieces	Parked at CD post
82	FA	35-11-00N 119-21-45E An-tung-wei CD Post [redacted]	Three 100-mm FA pieces	Parked at CD post
83	Deployed FA (coastal defense)	35-07-25N 119-18-25E Lan-shan-tou CD Site 1 [redacted] 35-06-20N 119-21-30E	4 FA pieces	In firing positions

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**REFERENCES**

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**MAPS OR CHARTS**

ACIC. Series ONC, Sheets G-9 and G-10, scale 1:1,000,000

**DOCUMENT**

1. NPIC. [ ] PIR-045/72, Developments in Shantung Province, China, Oct 72 (TOP SECRET RUFF) 25X1

**REQUIREMENT**

Project 143371NH

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